

**In th Claims**

1. (currently amended) An interface forming method comprising:  
forming a first layer comprising a first metal;  
chemisorbing on and in contact with the first layer an interface layer comprising  
at least ~~one monolayer of~~ two monolayers that each have the first metal intermixed with  
a second metal different from the first metal; and  
forming a second layer comprising the second metal on and in contact with the  
interface layer and improving adhesion between the first layer and the second layer  
compared to adhesion otherwise occurring with the second layer formed on and in  
contact with the first layer in the absence of the interface layer.
2. (previously presented) The method of claim 1 wherein the first layer does  
not substantially comprise the second metal.
3. (previously presented) The method of claim 2 wherein the second layer  
does not substantially comprise the first metal.
4. (previously presented) The method of claim 1 wherein the second layer  
does not substantially comprise the first metal.
5. (original) The method of claim 1 wherein the first layer is conductive and  
the second layer is insulative.
6. (previously presented) The method of claim 1 wherein the first layer  
comprises a first metal other than Ta and the second layer comprises Ta<sub>2</sub>O<sub>5</sub>.

7. (previously presented) The method of claim 6 wherein the first metal comprises Pt.

8. (currently amended) An electronic device interface forming method comprising forming an electronic device interface layer between and in contact with a first layer comprising a first metal and a second layer comprising a second metal different from the first metal, the interface layer being formed separately from forming the first and second layers, comprising the first and second metals, ~~and~~ not substantially comprising material from the first or second layers as separately formed, and improving adhesion between the first layer and the second layer compared to adhesion otherwise occurring with the second layer formed on and in contact with the first layer in the absence of the interface layer.

9. (previously presented) The method of claim 8 wherein the first layer does not substantially comprise the second metal.

10. (previously presented) The method of claim 9 wherein the second layer does not substantially comprise the first metal.

11. (previously presented) The method of claim 8 wherein the second layer does not substantially comprise the first metal.

12. (previously presented) The method of claim 8 wherein the interface layer comprises at least one monolayer of intermixed first and second metals chemisorbed on the first layer.

13. (currently amended) An electronic device interface forming method comprising:

forming a first electronic device layer comprising a first metal;

chemisorbing a first portion of at least one monolayer ~~over~~ on and in contact with the first layer, the first portion comprising the first metal;

chemisorbing a second portion of the at least one monolayer over the first layer, the second portion comprising a second metal different from the first metal and the first and second portions of the at least one monolayer being comprised by an interface layer; and

forming a second electronic device layer comprising the second metal on and in contact with the interface layer and improving adhesion between the first layer and the second layer compared to adhesion otherwise occurring with the second layer formed on and in contact with the first layer in the absence of the interface layer.

14. (previously presented) The method of claim 13 wherein the first layer does not substantially comprise the second metal.

15. (previously presented) The method of claim 14 wherein the second layer does not substantially comprise the first metal.

16. (previously presented) The method of claim 13 wherein the second layer does not substantially comprise the first metal.

17. (original) The method of claim 13 wherein the first portion of the at least one monolayer is chemisorbed on first parts of the first layer and the second portion of the at least one monolayer is chemisorbed on second parts of the first layer.

18. (currently amended) An electronic device interface forming method comprising:

forming a first electronic device layer comprising a first metal;

chemisorbing a first unsaturated interface layer comprising the first metal on and in contact with the first device layer, the first interface layer having a thickness of from about 1 to about 10 monolayers;

chemisorbing a second unsaturated interface layer at least on the first device layer in areas not saturated by the first interface layer, the second interface layer comprising a second metal different from the first metal and having a thickness of from about 1 to about 10 monolayers; and

forming a second electronic device layer comprising the second metal on the first and second intermixed interface layers.

19. (previously presented) The method of claim 18 wherein the first layer does not substantially comprise the second metal.

20. (previously presented) The method of claim 19 wherein the second layer does not substantially comprise the first metal.

21. (previously presented) The method of claim 18 wherein the second layer does not substantially comprise the first metal.

Claims 22-39 (canceled).

40. (previously presented) The method of claim 1 wherein the interface layer comprises at least two monolayers and the chemisorbing comprises providing a composition gradient across a thickness of the interface layer by increasing a composition ratio of the second metal to the first metal as the thickness of the interface layer increases.

41. (previously presented) The method of claim 1 wherein the chemisorbing comprises atomic layer depositing.

42. (previously presented) The method of claim 1 wherein the first metal is selected from the group consisting of Pt and Ru.

43. (previously presented) The method of claim 1 wherein the second metal is selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta.

44. (previously presented) The method of claim 1 wherein the first layer consists of Pt or Ru.

45. (previously presented) The method of claim 1 wherein the second layer consists of barium strontium titanate, lead zirconate titanate, or Ta<sub>2</sub>O<sub>5</sub>.

46. (currently amended) An electronic device interface forming method comprising:

forming a first electronic device layer comprising a first chemical element;  
chemisorbing on and in contact with the first layer an interface layer comprising at least two monolayers, the interface layer comprising the first chemical element intermixed with a second chemical element different from the first chemical element to provide a composition gradient across a thickness of the interface layer; and  
forming a second electronic device layer comprising the second chemical element on and in contact with the interface layer.

47. (previously presented) The method of claim 46 wherein the chemisorbing comprises increasing a composition ratio of the second chemical element to the first chemical element as the thickness of the interface layer increases.

48. (previously presented) The method of claim 46 wherein an innermost portion of the interface layer proximate the first layer exhibits a first composition ratio of the first to the second chemical element and an outermost portion of the interface layer proximate the second layer exhibits a second composition ratio of the first to the second chemical element, the first ratio being greater than the second ratio.

49. (previously presented) The method of claim 46 wherein the first and second chemical elements are metals.

50. (previously presented) The method of claim 46 wherein the chemisorbing comprises atomic layer depositing.

51. (previously presented) The method of claim 46 wherein the first chemical element is selected from the group consisting of Pt and Ru.

52. (previously presented) The method of claim 46 wherein the second chemical element is selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta.

53. (previously presented) The method of claim 46 wherein the first layer consists of Pt or Ru.

54. (previously presented) The method of claim 46 wherein the second layer consists of BST, PZT, or Ta<sub>2</sub>O<sub>5</sub>.

55. (currently amended) ~~An~~ A capacitor plate-to-dielectric interface forming method comprising:

forming a first layer capacitor plate over a semiconductive substrate, the first plate comprising a first metal selected from the group consisting of Pt and Ru;

chemisorbing an interface layer on and in contact with the first layer plate, the interface layer comprising a plurality of monolayers including at least one intermixed monolayer having the first metal intermixed in such monolayer with a second metal selected from the group consisting of Ba, Sr, Ti, Pb, Zr, and Ta; and

forming a ~~second~~ capacitor dielectric layer comprising the second metal on and in contact with the interface layer and improving adhesion between the first plate and the dielectric layer compared to adhesion otherwise occurring with the dielectric layer formed on and in contact with the first plate in the absence of the interface layer; and

forming a second capacitor plate over the dielectric layer.

56. (currently amended) The method of claim 55 wherein the first layer plate consists of Pt or Ru.

57. (currently amended) The method of claim 55 wherein the ~~second~~ dielectric layer consists of barium strontium titanate, lead zirconate titanate, or Ta<sub>2</sub>O<sub>5</sub>.

58. (currently amended) The method of claim 55 wherein the chemisorbing comprises providing a composition gradient across a thickness of the ~~interface~~ dielectric layer by increasing a composition ratio of the second metal to the first metal as the thickness of the ~~interface~~ dielectric layer increases.